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언론정보학 석사학위논문

**Losing Weight Together Online: How People Perceive  
Social Support in Online Weight Loss Communities**

온라인 체중감량 커뮤니티의 사회적 지지감:

네트워크 이론을 중심으로

2013년 7월

서울대학교 대학원

언론정보학과

서 민 향

**Losing Weight Together Online: How People Perceive  
Social Support in Online Weight Loss Communities**

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이 논문을 언론정보학 석사학위논문으로 제출함  
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## **Abstract**

Questioning the kind of social support that community members perceive through participation in an online weight loss community, this paper focused on the precedent elements of social support at both individual and community levels. Based on network theory, individuals' participation and social relations in egocentric networks as well as communities' characteristics were discussed as the prerequisites of four types of perceived social support: emotional, appraisal, informational and instrumental supports. As a result of a survey (N=498), it was found that the four types of social support are differentiated in accordance with each of the independent variables. Also individual participation was found to be the most powerful motivator of perceiving any kind of social support, and the level community activeness is the only predicting factor of emotional support among the four types of perceived social supports. In summary it was revealed that the effect of variables on social support at the community level is relatively smaller than the effect of variables at the individual level. Nevertheless, communities' structural characteristics are influential to

individuals' perception which can be interpreted as the notion that online communities exist with identities as 'a group' in the perception of the community members, and beyond its function as just a platform.

**Key Words :** perceived social support, social network theory, online weight loss community, computer mediated communication

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## **I. Introduction**

Human's interest in their bodies is not something new; in terms of weight, obesity is a social problem and weight-loss is a social concern of those who are eager to be healthy and attractive. Particularly in Korea, it is socially natural for everyone to try being on a diet at least once, and there are numerous media programs which focus on losing weight. Celebrities' showing off how they have achieved drastic weight-loss in short periods of time has become an easy way to attract people's attentions; TV programs dealing with weight-loss, such as information about exercise and plastic surgery, are already popular.

Amongst the abundant social concerns on weight-loss, the remarkable phenomenon is that a plethora of people share their experiences and knowledge in online communities. There are numerous online communities targeting weight loss; for example, more than 800,000 people are the member of a certain online community<sup>1</sup>, and out of them, around 20,000 people log-in to the community every day. As a member of one of these communities for about 10 years, I have often

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<sup>1</sup> <http://cafe.daum.net/slim/>

wondered why people try to lose weight with the help of an online community; also, a long-period of observation of the community members leads me to question what individuals expect to gain by the interacting with other community members.

The internet gets integrated into rhythms of daily life and online life is intertwined with offline activities; the amount of contact and resources exchanged with members of online and offline communities of their own is affected by newly advanced communication technologies (Wellman, Boase & Chen, 2002). These resources can be translated as social support, which means the emotional, informational and instrumental resources provided by the others (Cutrona & Russell, 1990). Even though there has been a tendency that a body of research has focused on whether quality and (or) quantity of social support is directly or indirectly related to health outcomes, research about how people can receive social support has been relatively limited. Thus, with a curiosity of what is influential to social support this paper attempts to investigate what the preceding conditions of social support are based on the social network theory. In doing so, this research will examine four research questions in details:

Firstly, how individuals' activity in online weight-loss communities

is associated with social support will be discussed as a micro-level analysis. As social support can be attained only through individuals' activities, in this paper, the mediated communication and individuals' participation in online communities are discussed as individual level condition of social support. Secondly, the size and activeness of online communities is considered at the macro-level. As social beings, it is natural of individuals to get influenced by their own communities; however, previous research has neglected to examine how communities effect individuals' perception; particularly when it comes to social support from online communities. Thus, this paper will examine how the structural characteristics are influential to social support. Moreover, in order to find the most influential element of social support, multiple regression analysis is conducted for variables in both individual and community levels. Considering dual levels is a useful tool to provide the overall perspective of social support; the small scale interaction at the individual level can be translated into large scale patterns at the community level, and these in turn can feed back to individuals. Consequently, in this study, I would like to add the more comprehensive understanding about how people receive social support in online communities.

## **II. Theoretical Backgrounds**

### **1. Social Network Theory**

Based on social network theory (Tolsdorf, 1976; Wilcox, 1981), this study aims to approach social support in online weight loss communities questioning how the community member acquires social support. In social network theory it is regarded that social relationships consist of nodes and ties; nodes imply individual actors within the network, and ties represent dyadic relationships between the individuals, such as friendship, kinship, organizational position, sexual relationships, etc. (Wasserman & Faust, 1994). The approach of the social network concept coherently features that it is not the attributes of individuals but the relations between those individuals that should be focused in the academic research (Wasserman & Faust, 1994). This has become preferred in many fields of academic research as the significant frame to understand a plethora of the social units, individuals or organizations, which interplay each other in the multiple levels (Pappi, 1987). It includes various sub-concepts; characteristics of social networks such as the size of networks, density, multidimensionality, directedness, reciprocity, frequency, homogeneity and so on.

These sub-concepts can be integrated into the two main conceptions as structural characteristics of networks and characteristics of component linkages (Mitchell, 1980), indicating that the former could be interpreted as the feature of the whole network at the community level, the latter as the feature of the egocentric network at the individual level. With this view, researchers have tried to examine the ways in which the support system of a network is beneficial to develop social support; and concluded that the structural features of communities are identified as an imperative factor to predict the productivity of social support in community level (Gottlieb, 1983; Wellman, 1978), and also how different types of social ties in egocentric network could reach various kinds of resources are also discussed (Krackhardt, 1992; Haythornthwaite, 2000; Wellman & Wotely, 1990).

In this sense, it can be interpreted that the examination of the characteristics of supportive social networks analysis occurs at a dual level: micro-level with personal social ties and macro-level with the overall network - an imperative to approach to measure social support. Moreover, it is estimated that the level of social support can be increased or decreased in accordance with the extent to the network structure, personal engagement and interaction. It is grounded in the

fact that there have been previous studies which insist that social support perception be differentiated by multiple elements as persons and groups are vital reciprocal resources for the development of social networks (Kelly, 1999). In other words, individuals are affected by either of the determinants, one is network determinants, and the other is individual determinants; and those determinants stemming from the interpersonal interaction and settings (Kelly, 1999). Therefore, based on the social network theory, the way in which individual and network features are related with social support will be discussed; especially whether the relation can be adapted to the setting of online weight loss community is going to be examined.

### **III. Literature Reviews**

#### **1. Perceived Social Support**

Social support can be defined as either the actual or perceived availability of helpful behavior by others to rely on, to give care, and love to the self (Kaplan, 1977). As social support has gained academic attention due to its buffering effects on health, the definitions have been varied in accordance with researchers. For example, Weiss (1974) defined social support as six kinds of relational provision such as affection, social integration, chance of nurture, assurance of value, trustable connectedness and acquisition of guidance; and Diamonds (1979) explained that social support is a trade between interpersonal relations including more than one of resources: emotional expression to others, recognition of others' behavior and material aids to others.

With the various definitions by researchers, whether social support actually exists or is just perceived has also been questioned. However, as social beings, people can instinctively perceive social support by exchanging various kinds of resources with others such as instrumental, informational, or emotional assistance (House & Kahn, 1985); and as Albrecht and Adelman (1987) referred, social support is the

communication itself between recipients and providers to enhance a perception of personal control in one's life experience, and the actual aid often just implies the provision of others who provide love and/or esteem from the behind of the recipients; thus, social support can be interpreted as psychological implication, perceived social support (Cohen & Hoberman, 1983). In several research papers, perceived social support is more useful than actually provided social support to predict psychological and physical well-being, reacting effectiveness and adaptive results (Cohen& Syme, 1985; Dunkel-Schetter & Bennett, 1990). Thus in this paper, social support is defined as any kind of positive resources to be provided by others through social relations.

It can be said that the most essential determinant of social support is interpersonal relation and communication in between (House, 1988; Morrison, 2002) because the conception of social support is a perception which cannot be discerned without others' existence; and perceived social support can be measured only by the subjective appraisal, based on self-appraisal of support interactions with others and available resources (Vaux & Harrison, 1985). Thus, social support has been traditionally discussed as a being provided by intimate dyadic relationships such as family, friends, and colleagues (Procidano &



Heller, 1983; Tanis, 2008); and it is regarded as reasonable that individuals with few, low quality family and friend relationships do not feel supported after all (Vaux & Harrison, 1985).

At the same time, some researchers sought what is influential to social support from aggregated interpersonal relations; a community. Since a person cannot help being affected by not only other individuals but also the whole of a group at the same time, Vaux and Harrison (1985) insisted that the better understanding of community characteristics should be a priority in social support research because network characteristics may be crucial to social support.

The concept of social support can be categorized into 4 classes based on the contents of support: instrumental, informational, emotional, and appraisal support (House, 1981; Cohen & Hoberman, 1983). Emotional support is the perceived comfort when emotional sympathy, respect or love is provided by others (e.g. care, sense of belongings); informational support is defined as the perception of enough information or advice provided by others (e.g. recommendation, information to deal with certain problems); instrumental support is defined as the perception of enough tangible resources such as material aid or behavioral assistance provided to solve certain problems (e.g.

financial aid); appraisal support is defined as the perceived aid-availability to self-evaluate eventually leading to self-esteem (e.g. social comparison) (House, 1981). In summary, these 4 classes of social support can be viewed as a communication process with others during which a variety of support is reciprocally provided and received as part of daily life (House & Kahn, 1985).

Like offline interpersonal relations, there are four types of social support in the setting of online communities. In online communities, people can perform more self-disclosure anonymously (Sproull & Kiesler, 1991; Rheingold, 1993); so they are more willing to reveal their personal situation to seek to way out or to express their opinions regardless of their individual situation. Especially in online weight loss communities, people can be more honest about their feelings about their weight matters, which is not a comfortable topic to share with others in face to face settings. Thus, online communities' members honestly communicate, which gradually builds up more concrete common interests within the community. Moreover, only someone who has experienced the efforts to lose weight can fully understand the others' similar difficulties and empathize; thus, online weight loss communities can be interpreted the venue of emotional support.

At the same time, it is observed that appraisal support is exchanged in online weight loss communities. Aforementioned, appraisal support is the perceived resources to self-evaluate, eventually leading to self-esteem; some researchers conceptualized it as forms of emotional support because it includes the expressions of encouragement or reassurance, which is related with emotion (Rook & Underwood, 2000; Burleson, 2003). However, it has been discussed that appraisal could be not only emotional but also cognitive when it includes the objective assessment about the self. The assessment is driven from the perspective of others; thus, it influences to self-esteem in terms of cognitive dimension. In other words, if emotional support is closer to the concept of empathy, appraisal support is much closer to the cognitive evaluation of others, playing a role of engendering self-esteem. Especially, it tends to appear more obviously in online weight loss communities; for example, emotional support can be found in the postings or replies mentioning how hard the exercise is or how hungry they are, expressing empathy and encouraging themselves. On the other hand, the members of online weight loss communities try to have appraisal support by asking to guess how heavy they look like or by questioning if their plans to lose weight is reasonable or not. The

assessment from anonymous members of online weight loss community can be cognitively influential to self-esteem, which should be distinguished from emotional support.

Furthermore, online communities can be understood as the place of abundant informational support. A form of online communities, text-based conversation, enables asynchronous interaction (Walther, 1996) which can be achieved because all interactions are automatically stored online (Tanis, 2008). It indicates that there are increasing amounts of information available as time goes by, access to which is not spatially or temporally limited.

At the same time, we need to notice that online communities have become a venue to contact with experts in many fields who cannot easily be accessed offline as well as with ordinary people, who share their own stories about experiences in a specific situation regardless of time, space (Tanis, 2008). The increased possibility to reach various kinds of people can predict there are more tangible resources expected to approach in online weight loss communities; for example, the friends to run together or to check their daily process of losing weight, which is because they have a common interest, losing weight.

As discussed so far, it is lucid that the characteristics of the

computer-mediated setting result in various kinds of social support. However, a body of research has focused on the effect of social support (Cohen & Wills, 1985; Leavy, 1983; Berkman, Glass, Brissette & Seeman, 2000); not much attention was paid on the determinant of social support. Even though there are examines of either the benefits of social relationships in the context of online communities (Baym, 1999; Sproull and Kiesler, 2001) or the effect of community size and activity (Butler, 2001), they were limited to understand social support because the research focused on online community sustainability as taking social support for granted. However, what we should notice is social support can be perceived differently to each community members in accordance with both individual activities and community characteristics because it eventually leads mediated health behaviors. In the sense, the paper aims to crystalize the most influential factors to foster various kinds of social support.

## **2. Egocentric Network in Individual Level**

As previously discussed, social network theory has dual levels of perspective: the egocentric network and the whole network. In the egocentric network, dyadic interpersonal relationships; tie means a relation existing between two actors (nodes). Ties can be diversified in accordance with tie strength, affected by the characteristics of two nodes and their link (Petróczi & Fülöp Bazsó, 2007). In this chapter, how egocentric network is influential to social support is discussed.

### **2.1. Egocentric Network Size**

In terms of social ties, the size of individuals' egocentric network is an indicator of how far a person is interacting with the community members; in other words how many people are involved in individuals' communication within a community. Social network theory explains that the size of networks implies the number of individuals with whom the focal person has direct contact; or the number of individuals to whom people may feel close (Wellman & Berkowitz, 1988). Thus, the size of networks can be interpreted as the number of latent support

providers at individual levels.

Previous research has argued that the social network size is influential to the individuals' perception. Especially, the large size of an egocentric network is known to be beneficial to help people having stronger motivation due to group influence. According to social impact theory (Latane et al, 1979), which suggests the amount of social impact is led to increase as the number of sources increases, people tend to be similar to the group members by group pressure (Gass & Seiter, 1999); at the same time, the behavior of the majority is recognized as the standard of the network, thus people could have more assurance from similar behaviors to pursue (Martin et al. 2002), which could facilitate people to have the stronger motivation. Additionally, Cohen (2004) argued that community networks might influence whether community members exercise, eat low-fat diets, smoke, or take illicit drugs because group-identity may also engender feelings of responsibility for others resulting in increased motivation to take care of oneself so responsibility can be fulfilled. This shows that the larger size of egocentric network can be influential to the individuals' perceptions of social support.

While reviewing related literatures, however, a limitation was

surfaced; that there is not a clear distinction between individuals' egocentric social network at an individual level and the whole network at the community level. For example, Lee & Kim (2011) tried to examine how the characteristics of online social networks are influential to the social support. They concluded that the strength and the size of network are positively related with both perceived emotional and informational support in a virtual community; however, there was conceptual ambiguity in terms of measurement. In the study, the network size was measured by survey questions asking the number of directly connected people with the survey respondents, which is more suitable measurement for the size of egocentric network. However, the conclusion is induced from reasoning based on the whole network perspective that the more participants indicates a larger amount of resources to share and more various social supports, by Granovetter (1973). In other words, the research cannot be free from a limitation the levels of analysis are dubious because the variable in the community level was measured by questioning the perception of egocentric network in individuals' level.

Thus, this paper aims to draw a clear line for the level of analysis at both individual and community levels in terms of 'the size of network'



because it is not always the case that the size of egocentric network and the size of the whole network where the individuals belong to are consistent. It could be plausible that a person have limited numbers of social ties in a large size of network; and also that a person may know everyone in the small size of network. Thus, they should be distinguished and it is the aim of this paper to estimate the effect of network size both in individual and community level. With this notion, the research questions can be as follow:

**Hypothesis 1.** Among the four dimensions of social support, emotional support will be the most positively associated with the size of egocentric network in online weight-loss community.

## **2.2 Egocentric Network Strength**

Social relations can be differentiated according to their strengths. In describing tie strength, ‘strong ties’ means that a relation between two nodes is perceived to be close each other in various ways such as by frequent contacts or sharing similar personal attributes. It is especially

coherent to traditional categorization of interpersonal relations in interpersonal communication studies. According to Duck (1994) social relations can be differentiated into 5 dimensions; stranger, acquaintance, friend, lover and family; the latter usually indicates the closer relationship in which is embedded more interdependence and more reciprocal obligations, which could in turn be defined as strong ties. Contrarily, 'weak ties' are supposed to be the former ones, which are relatively far from the perception of 'closeness'.

Aforementioned, social support is various resources exchanged between social relations; however, it could be conceptually confusing whether tie strength is synonymous with social support because they are naturally highly-correlated in the intuitive perspective. However, it should be noticed that a tie is a relation itself existing between two actors when they have any interaction; but social support is a kind of resources exchanged between two nodes such as goods, services, or information (Haythornthwaite, 2000). In particular, social support is positive and potentially beneficial resource, which is a type of the various contents of relation. Compared to social support, social ties also share negative or conflictive quality of relationships such as relational demands, conflicts and social regulation or control that may be

detrimental to health (House, Umberson & Landis, 1988).

Moreover, in order to delineate the precise difference of those concepts, Wellman, Carrington and Hall (1988) quantitatively analyzed the relation between tie strength and social support; and the regression coefficients between strength and support were not high enough to conclude a fundamental identity. Additionally, in their study, various social support were differentiated as some strong relations are supportive in one way but not in another (Wellman, 1991). Thus, the concept of social support should be obviously distinguished from the concept of tie strength.

Traditionally there have been a plethora of attempts to elucidate how to properly measure tie strength. In order to measure tie strength, the indicators of voluntary investment for social relations (Perlman and Fehr, 1987), the amount of advice given/received (Mathews et al., 1998), and the breadth of topics (Marsden and Campbell, 1984) were regarded as a key indicator to be 'strong ties.' In the context of online communities, the strength of ties has been measured by the factors for face to face communication, for example, the combinations of frequency of contact, duration of the association, intimacy of the tie, provision of reciprocal services and similarity as measures of tie

strength (Wellman & Guilia, 1999). It can be grounded in the notion of the sense of co-location. The sense of co-location is a concept of the feeling of being together or coexisting in the perceived territory while interacting with people online (Hwang, 2007); also it could be interpreted as the perceived proximity to others in interpersonal communication (McLeod et al., 1997). Perceived proximity can be more influential to individuals as people may feel attraction to online communities' members who are assumed to share analogous interests rather than those who they may bump into in the same physical locations (Baym, 2010; Baker, 2008). The sense of co-location is rooted in the discussion of co-presence, which indicates the subjective experiences and feelings of the users in the mediated spaces.

Similarly, Haythornthwaite (2002) insisted that online ties, like offline ties, are expected to be stronger to the extent that they demonstrate greater varieties of interaction and exchange, or closer to the extent that they exchange emotional support. Moreover, Mergel and Langenberg (2006) also pointed out that the degree of common interests among network members and the degree of shared norms and common understanding among network members are playing most important roles as factors leading to the creation, maintenance of online

network ties. They also argued that frequency and intensity of contact opportunities are essential in terms that the more intense overlapping interests trigger the potential to reconnect now and then, so that ties are kept alive and revisited. Moreover, due to the cheaper and easier technology available to perform ‘pep talks’, people are led to more frequent sharing of one another’s worlds of experience, and hence stabilize the “commonly objectivated reality” with social relations, which leads to the formation of stronger ties (Duck, 1994) in the society of ‘Always on’ (Licoppe & Smoreda, 2006).

Especially, it is found that these factors are also adaptable in social media according to Gilbert and Karrie Karahalios (2009). In an in-depth data set of 35 participants’ networks of their personal Facebook accounts, they examined the predictive variables of seven kinds of dimensions: intimacy, intensity, duration, social distance, services, emotional support and structural variable. As a result, the most important factor to predict the stronger ties was revealed as intimacy, measured by the days since last communication and the number of intimacy words in exchanged messages. Additionally, intensity, measured by the number of messages exchanged in various functions embedded in Facebook, and duration, measured by days since first

communication is a proxy for the length of the friendship, were also found as important; and social distance was following. Consequently, it can be inferred that online social ties can also be classified by the traditional criteria; frequency of contact and intimacy of the ties, the duration of relation as well as similarity, which is coherent to what Granovetter (1973) used for examining the strength of ties.

It should be mentioned that some may be curious why the classification of social ties is worthy to investigate. The answers lie within the findings that the kinds of social resources can be expected to depend on the strength of social ties (Haythornthwaite, 2002; Wellman, 1990). We don't expect to get the same resources, which the family would provide us, from acquaintances. Similarly, the different strength levels of social ties in online community are expected to provide the differentiated social support. Thus, by understanding it, we can get the implication of the reality that the online community members are seeking the different kinds of satisfaction in virtual community.

I estimate the strength of tie is mostly influential to emotional support in online weight loss community because weight problem is not only physical problem but also more like psychological matter (Nestle & Jacobson, 2000). There is a higher likelihood of being obese due to

peer influence when someone has many close people who are overweight, as well as a greater possibility of achieving weight loss because it is not something to be easily achieved without strong motivation (Albrecht & Goldsmith, 2003). Thus, it can be possible that what online communities' members mostly seek in virtual space by interpersonal interactions is emotional encouragement or empathy to lose weight, which is the aggregated goal of community members.

To conclude, it is expected that emotional support would be prominent if people have strong ties built up in the community. However, the interest in how online social tie strength is related to various social supports has been relatively scarce. Thus, based on the literature review, the following research question is going to be examined:

**Hypothesis 2.** Among the four dimensions of social support, emotional support will be the most positively associated with the strength of ties in online weight-loss community.

### **3. Individual Participation**

In addition to the effect of egocentric networks on social support, this study aims to examine the influence of individual participation as an imperative prerequisite of social support. With regards for health, community participation can be variously interpreted “as the process by which members of the community, either individually or collectively and with varying levels of commitment:(a) develop the capability to assure great responsibility for assessing their health needs and problems; (b) plan and then act to implement their solutions; (c) create and maintain organizations in support of these efforts; and (d) evaluate the effects and bring about necessary adjustment in goals and programs on an ongoing basis” (Zakus & Lysack, 1998). In the setting of online weight loss communities, those interpretations are still valid because (a) the members of the community can recognize their weight problems; (b) they make a personal plan and are motivated to lose weight; (c) they create and maintain the online community by generating posts; and (d) they assess their progress of losing weight and adjust their own ways to achieve their goal.

Online community participation generally has a form of creating



content and consuming it (Butler et al., 2007). When it comes to offline community participation, it involves various social practices such as raising money, serving on committees, and organizing civic activities or religious attendances. Meanwhile, online community participation includes generating messages, responding to messages, organizing discussions, and offering other online activities of interest to members. Also consuming contents could be a form of participation; if members do not regularly read the material that others provided, the online group will not remain viable. In summary, online communities can exist as long as the relevant contents are created or consumed. When the online community members post (send) and read messages, they can construct personal relationships as well as group identity.

In reality, there are numerous people participating in building online communities by creating and consuming the related contents. For example, ‘A War against Obesity’, the biggest online weight-loss community in Korea, has more than 3000 posts and 15,000 visiting members a day. The members are involved in the community in the form of generating posts about their experience, responding to others’ posts by dropping lines, offering exercise strategies to members and pressing the ‘like’ button. By doing so, members interact with other

members and acquire various kinds of resources, and hence, a community in the setting of online can subsist.

Online communities can be built and last only if there is participation because it is a social group consisting of only 'voluntary' interpersonal interactions sharing common experience or interests, not of inevitable interpersonal interaction due to a residentially-based community (Rheingold, 1993); thus, it is imperative to evaluate how individuals' online community participation is influential to themselves, especially in their perception of social support because participation is the most crucial basis of belonging to community.

The notion that individuals' participation may be influential to the perceived social support is mainly based upon two reasons. Firstly, when highly participating in an online community by posting and reading others posts many times, there could be more chances to have mediated social interactions with the community members directly or indirectly. That means the more individuals are involved in the online community, the more individuals' social network within the community could be moderated. Also, as it can be plausible that the more participatory members can easily recognize the community is larger and even more active than it really is, so the perception about

community size can be biased depending on individuals, too. Thus, it can be induced that the online community members' participation can moderate the effect of online social ties on the social support.

Secondly, the individuals' participation can be influential to the effect of online social ties is because online participation is closely related with the willingness to provide support. Aforementioned, social support can include various kinds of resources exchanged between people; thus, it has each direction and there are both providers and receivers. This reciprocal behavior is based on the human's nature, indicating people's tendency to return the benefits they receive from others (Gouldner, 1960). Greenberg (1980) pointed out that the norm of reciprocity is a resulted of the uncomfortable state of tension. When people accept a benefit from others, they naturally feel discomfort and try to reduce it directly or indirectly by giving something back to others. So by the nature, if people provide assistance to others, they will expect to be reciprocated when they are in need; in other words, providing support to someone in the same network increases the expectation of probability that one's own needs will be met in the future (Shumaker, 1984). In this sense, it can be inferred that there is a higher possibility that support providers may have more chances to perceive social

support due to their expectation of reciprocity.

Moreover, online community participation could be interpreted as another way of increasing self-esteem. Providing support leads people to be in mutually nurturing relationships (Baston, Fultz, & Schoenrade, 1984); and the ability to be able to nurture someone else is a fulfilling and self-validating experience (Kessler et al., 1985 p. 16), thus, people can get higher self- evaluation while providing social support in online community. From a similar perspective, previous research discussed whether providing social support to others is beneficial; and it turned out providing social support fosters improved physical and mental health (Schwartz & Sendor, 2000) and reduced distress (Midlarsky, 1991) or depression (Taylor & Turner, 2000). Since a body of research has regarded perceived social support as the precedent element to healthy status, it gave this paper the implication to tackle if community participation affects perceived social support or not.

Therefore, this paper aims to examine how individuals' active participation to provide social support in online weight loss communities affects their own social support. As there are many people to take part in online weight loss communities, it is meaningful to examine whether active participation of the online community is

beneficial to facilitate social support perception; because it is practically important to find the motivating factor for the community members to maximize the effect of what they can expect to gain from the online weight loss community. Thus, based on above reasoning, a research question is delineated as following:

**Research Question 1.** How are the four dimensions of social support differentiated in accordance with individual participation in online weight-loss community?

#### **4. Whole Network in Community Level**

As well as dyadic relations at the individual level, the evaluation of the overall structural characteristics of the network provides a way to analyze at the community level, which can explain how network structure itself influences the individuals and vice versa. The reason why structural characteristics of the network are also important to understand the individual characteristics of the members in the communities, especially the perceived social support of those in this paper, is that overall network characteristics affect the interrelation of the community members and also objectively explain the overlapping personal tendencies. In other words, social network perspective is worthy to delineate the organic dynamics of aggregated ties; a community (Freeman, 1979; Burt, 1995).

##### **4.1. Community Size**

The total size of network, as a structural characteristic, has been used as a useful tool to understand pre-existing community and its individual members. As mentioned before, the size of egocentric

network and the whole network community should be distinguished; and the size of the whole network can be conceptualized as the total number of social actors. Applied into online community settings, the online community size can be defined as the number of online community members, in other words, total numbers of latent support providers belonging to the networks.

If the network is larger, it could be helpful for people to have the more opportunities to access resources of greater quantity or better quality. Albrecht & Goldsmith (2003) argued that if the members of communities tend to be heterogeneous then the further exchanging of information or resources is facilitated. It is coherent to the "strength of weak ties" argument which contends that weak ties provide better connections to different social milieus because they usually connect socially dissimilar persons (Granovetter 1982); the larger community can be interpreted as greater heterogeneity network (Viswanath et al., 2006), hence, the larger size of community should have more such bridging ties, providing variety accesses to information and services. Empirically, with that in mind, it was also found that the elderly people belonging to the larger networks in Beijing and Hong Kong was reported to feel happier (Chan & Lee, 2006).

Especially, in the setting of online communities, the effect of whole network size on the individuals' perceptions of social support can be more clearly differentiated from the individuals' interpersonal network size because a member of an online community can communicate with many of others at the same time because text-based conversation in online space enables asynchronous interpersonal interactions (Walther, 1996). Compared to offline interaction, directly one-to-one communication, people may not easily acknowledge whether they are interacting with others or not in online community because as previously stated, all interactions are asynchronously mediated by text, and automatically stored (Tanis, 2008) even though people do not necessarily realize it. Thus, in these indirect ways, online community members accumulate the amounts of interactions as time goes by and access to the others, not spatially or temporally limited; and even there is no distinctive 'the pure interpersonal network' existing anymore because anyone can be involved in anonymous interactions, even though they don't have to personally commit to others. In this sense, it can be assumed that the individuals' perception toward the concept of 'community' could be more significant because there is possibility people may think it is 'a community' itself with whom they are



interacting, instead of a certain member of the community when they use the online community.

Even though there are more people who are involved with various kinds of online communities, it is very rare to find a research examining the influence of the size of online community. There have been a few attempts to see the influence of network characteristics of online community on individuals' perception of social supports, however, there was a limitation that the level of analysis is blurred (Lee & Kim, 2011); thus, it was the ego-centric interpersonal networks in the online community that were questioned, not the network characteristics. In this sense, how online weight-loss community size in the network level is influential to individuals' perceived social support will be properly examined in this paper by adapting network characteristics at the community level. It is mainly grounded in the notion that the expectation of social conformity to the major social (or community) standards is aggrandized if the size of community is increased. Moreover, it is logical to anticipate that the larger community has more possibility to provide more various resources to take from others. Therefore, in this paper, it will be explored whether the whole size of online weight loss community is positively related with perceived

social support; and if it is in the case, what kinds of social support is the mostly perceived too.

**Hypothesis 3.** Among the four dimensions of social support, informational support will be the most positively associated with the size of online weight-loss communities.

#### **4.2. Community Activeness**

If the size of community is the quantitative attribute of community, in this chapter, community activeness is to be discussed as the qualitative attribute of the whole network, which could be influential to social support. Community activeness is defined as the extent to how actively the community is alive with frequent interactions among community members. Traditionally, it was the density of network, how densely the network is knitted, that has been regarded as the indicator of quality of network; and it has also been identified as a key determinant of health and well-being (Wegner, 1991). Conceptually, the network density is not exactly same as

community activeness because the density of network signifies the strength of the aggregated social relations among community members; on the other hand, community activeness indicates how dynamically the online communities exist. Nevertheless, it is plausible that the network density could be conceptually compatible to the community activeness in terms of availability of social resources. Network density signifies how the members of community densely interconnected, which means there are more social relations to approach nearby. This can be interpreted that a larger amount of social resources are easily available; and a larger flow of supportive resources can be anticipated (Wellman & Wotley, 1990), which is coherent to the concept of community activeness.

In this point, we should remind of a feature that the members of online community are interconnected only through texts. Aforementioned, people in online community asynchronously communicate with others with a form of posting/reading contents; in other words, people are only indirectly connected with others, formulating 2-mode networks of both contents and people as the two nodes in the perspective of social network theory. People can reach to others via contents; thus, if there are more contents in online

communities, there are more accesses nearby for people to communicate with others. Therefore, likewise the strength of egocentric networks, the frequency of contents updated can imply the number of mediators for the interactions among community members, eventually influential the perception of individuals about interconnectivity within online communities (Maloney-Krichmar & Preece, 2005).

Especially, in the setting of virtual communities, what people can directly face is not the other members but the contents, such as postings or messages. Therefore, how frequent/many the messages are posted, and how many people leave replies about postings could be more imperative to the individuals' perception of social support. Therefore, how actively people are exchanging supportive resources in online communities could be interpreted as similar as how densely the community members are knitted since the updated postings could be a proxy of activities of aggregated members in online communities.

In general, high-density networks were regarded to be associated with a greater degree of social support (Wellman, 1978). It is grounded on that the rates of reciprocation are affected by network

density; so there is more expectation of the interactive exchanging of resources observed in high-density settings (Marsden, 1990). It has empirically revealed that there is research about an individual recovering from severe injuries sustained in an automobile accident who benefitted from a small, close-knit (high density) due to intimate network which provided affective support (Israel, 1985). Especially, among various kinds of social support, it is known that high density networks tend to engender the greater emotional support (Seeman et al., 2001). It is because that the higher density implies there are greater numbers of strong ties in the average network. Thus, the social support can be prominent in emotional way such as motivation (Hammer, 1983). House et al. (1988) pointed out that networks of high density appear to be simultaneously helpful in maintaining social identity. As people normally try to fit in the social norm, high density network can be beneficial to people's health and well-being as long as the social norm is desirably oriented.

In the similar perspective, Maloney-Krichmar & Preece (2005) examining community dynamics in an online health community, they used data collected from members' postings of the Kneeboard for the following variables: the number of messages posted, the number of

messages and responses posted by each community member, the number of times a messages was viewed and so on. By doing so, they found that densely connected subgroups actively contributed to the community's stability and vitality.

In sum, the network density in community level is defined as the activeness of community interaction; and in order to estimate it, the average number of new postings per day is going to be considered. Thus, if there are the more new postings in an online community, it can be interpreted as the more active community. In this sense, this paper is grounded on an assumption that members of the more active community would acquire the more social support because the more active a community implies the newer resources to be reachable in the community. As mentioned before, social support is a perception of resources available from others; therefore, if the activeness of community is higher, there is the more possibility for individuals to acquire a perception to be supported.

**Research Question 2.** How are the four dimensions of social support differentiated in accordance with community activeness in online weight-loss community?

## **IV. Method**

### **1. Aim of the Study**

The aim of this paper is to study what is influential to social support and the potential implications for successful online weight-loss community usage by multilevel tailored interventions between online social interactions in individual level and community network characteristics to social support.

### **2. Samples of the Study**

In order to evaluate how online weight-loss community is influential to social support, the research conducted a survey targeting people who have experience to be a member of online weight-loss community. Totally, 512 persons of Embrain panels, a research firm, took part in a survey as they are the members of any online weight-loss communities. Since losing weight is a common interest regardless age or sex, the range of age of the survey sample was between 20s and 50s, and both male and female were all considered as respondents. Participants ranged from 20 to 59 years and the mean age of respondents was 35.67( $SD=10.43$ ); also 51% were female. Subtracting

14 cases whose community variables are not available, totally 498 cases were used in analysis; SPSS 18.0 were used for the analysis.

### **3. Measurement of Variables**

#### **3.1. Social Support**

Since research of the social support gained from online communities has been scarce yet, in this paper, social support from online community is defined as the perception of supportive resources from online community. Those resources can be categorized into four different dimensions. In other words, social support can be emotional (e.g., nurturance), instrumental (e.g., financial assistance), informational (e.g., advice), or appraisal (e.g. social comparison) (House, 1981; Cohen & Hoberman, 1983). Emotional support is defined as the perceived comfort when emotional empathy respect or love is provided by the online community members; informational support is defined as the perception of enough information or advice provided by the online community; instrumental support is defined as the perception of enough physical resources provided to deal with problems; appraisal support is defined as perceived aid-availability to self-evaluate through social comparison with other members in the



community.

After choosing the name of online weight loss community where the respondents belong to, they were asked to answer for each questions of perceived social support. The measure of social support is revised from Cohen & Hoberman (1983) and Park (1985) to be adaptable for this paper.

As shown on the Table 1, whether the respondents feel emotionally cared for, have information, instrumental assistance as well as feedbacks available from simultaneously both online community itself and its members were questioned.

Four kinds of social supports were measured with the 4 questions, totally 16, and each was scored with 5 points from very disagree to very agree. In analysis, the averages of 4 questions in four social supports dimensions were used as the levels of reliability in each social support were stable. Cronbach's Alpha of emotional support was .813, of appraisal support was .762, of informational support was .823, and of instrumental support was .734.

**<Table 1> Survey Questions to ascertain Perceived Social Support**

Emotional Support	When I try to lose weight, I could be consoled by the activity in the online weight loss community.
	The members of the online weight loss community have empathy for the difficulties I have when I lose weight.
	The members of the online weight loss community will give me advice for my trouble regarding weight loss with concerns.
	I could be cheered up by the members of the online weight loss community who give me nice comments.
Appraisal Support	The members of the online weight loss community will give me objective appraisals about my body shape.
	The members of the online weight loss community will tell me if my way to lose weight is reasonable or not.
	Like the community members succeeded in losing weight, I also can succeed in losing weight.
	The members of the online weight loss community will give me praise when I achieve my goal.
Informational Support	I can find reliable information about how to lose weight from the online community.
	I can avoid losing weight dangerously with the help of the online weight loss community.
	I learned many new things about losing weight from the online community. I can find the solution from this online community when I confront some obstacles to lose weight.
Instrumental Support	I can find a friend to lose weight together through the online weight loss community.
	If I send a message asking knowhow to lose weight to the members of online community, they are willing to reply to me.
	Through the online weight loss community, I could buy some weight loss products with the lower price in which I have recently interest.
	Through the online weight loss community, I could personally participate in promoting events of weight loss products in which I have recently interest.

### **3.2. Variables in Individual Level**

#### **1) The Size of Individual Network**

The size of individuals' network size in online weight loss community is measured by a question, 'how many people do you estimate you are interacting in this online community?'(Morrison, 2002).

#### **2) The Strength of Social Ties in Individual Network**

Tie strength indicates the extent to be close between social relations (Granovetter, 1973). In this paper, four measures of tie strength will be used: the degree of intimacy, the duration and frequency of the relationship between the respondent and alters, and similarity as the combination of Choi (2010) and Marin (2004) used.

First of all, respondents will be asked to think of 3 members in online community, whom they recently interacted within a month. And for each 3 persons they think these 4 questions will be given to answer: 'how do you feel intimate to this person?'; 'how similar interest do you think this person has with you?'; 'how many times did you interact with this person for last month?'; and 'how long ago do you think you know this person?'. The first two questions were marked in the range

from 1(not much) to 5(very much) and the last two questions were marked with actual numbers, which were transformed into 5 scales again while analyzing. Thus, the average of 4 measurements was used as an assessment of general egocentric social tie strength to each respondent (Cronbach's Alpha =.866).

### **3) Individuals' Participation**

Individuals' participation is defined as various commitments to community with a form of creating and consuming contents. Thus, it includes generating contents, responding to messages/posts and offering other online activities of interest to members (Butler et al., 2007). So, the respondents were asked 1) if they create contents in online community 2) if they respond to others by exchanging message or dropping lines, 3) if they spend time reading posts/messages in online weight-loss community; and the average of 3 measurements were used as an indicator of individuals' participation (Cronbach's Alpha =.763).

### **3.3. Variable in Community Level**

Twenty different kinds of online weight loss communities were chosen based on the communities' rankings in two major portal services, Naver([www.cafe.naver.com](http://www.cafe.naver.com)) and Daum([www.cafe.daum.net](http://www.cafe.daum.net)); and the respondents were given the twenty options to choose one of where they belong. And then, each community level variables were collected from their own online communities.

#### **1) Community Size**

The size of online community means the number of all alters (Burt, 1995). In this paper, the community size is measured by the both numbers of all members and the accumulated postings in communities (on May 5<sup>th</sup>, 2013).

#### **2) Community Activeness**

The activeness of online community is defined as the degree of how active the online community is. As the activeness of network, it was measured by numbers of active members and new postings during April, 2013;

### **3.4. Control Variables**

In order to control democratic factors and attributes of respondents, additional questions about sex, age, monthly income, the numbers of weight-loss experiences and the perceived need for weight-loss have been given to respondents. Since expecting that young females are relatively more concerning about weight loss, data of democratic factors were collected. Also as estimating that the numbers of individuals' previous experiences could be influential to the amount of usage online community as well as social support, the amount of weight-loss experiences has been measured by an answer ranged from 1(none) to 5(many times) for the question that 'how many times did you previously try to lose weight?'. Furthermore, the perceived need for weight loss can be subjectively differentiated, and hence affect to social support. Therefore, two questions will be asked: 'How urgent do you think you need to lose weight?' 'How much do you want to lose weight?' The answers were ranged from 1(not really) to 5(very much) and the average was used for analysis.

## V. Result

### 1. Descriptive Statistics

The <Table 2> sums up the descriptive statistics of variables of data. The period of membership in online communities ranges from 1 to 131 months, and the mean of membership period is 28.17 months ( $SD=23.7$ ). The users of online weight loss community responded that they averagely interacted with 18.72 people ( $SD = 41.6$ ) in online community during recent last month.

**<Table 2> Descriptive Statistics**

				N		Mean	SD
				Valid	Missing		
Control Variable	Age			498	0	35.47	10.42
	Period of Membership			498	0	28.17	23.70
Independent Variable	Egocentric Network		Size	498	0	18.72	41.60
			Strength	311	187	2.37	1.51
	Individual Participation			498	0	3.02	.83
	Whole Network	Size	Total Postings	498	0	663107.19	425674.74
			Total Members	498	0	422577.63	302989.53
		Activeness	New Postings	498	0	26888.42	30554.51
			New Members	498	0	29545.43	24959.54
	Dependent Variable	Perceived Social Support		Emotional	498	0	3.60
Appraisal				498	0	3.57	.62
Informational				498	0	3.66	.65
Instrumental				498	0	3.46	.65

And totally, twenty six online weight loss communities were included for analysis as presented in <Table 3>; the average number of all postings was 633,107 and the average number of all community members was 422,577 (May, 2013).

**<Table 3> On-line Weight Loss Communities Used for Analysis**

		Community Size		Community Activeness	
		Total Postings	Total Members	New Postings	Active Members
Naver	!!!헬스 & 다이어트!!!	100021	28546	1159	4192
	[The Fastian] 단식하는 사람들	42152	39993	1398	7425
	◆ 훈녀의 비밀?! 지방흡입 다이어트~	87572	17242	1494	1674
	★지방흡입술로 살뺀사람들★	204072	59034	12177	2937
	★지방흡입&지방분해주사로				
	S 라인만들기	34578	21673	2935	2004
	다이어트 먹으면서 뺀자	797016	234263	10717	35622
	다이어트 빅리그	3087	4584	1135	394
	다이어트(살빠지는곳)	4544	1327	2585	195
	강일수 다이어트	16409	34279	1324	9397
	성공 다이어트 바이블	11003	39534	446	14250
	시크릿 다이어트	1630	4816	116	1611
	여우야	932831	667430	60762	86409
	정석 다이어트	442237	98885	1256	6026
	짱사모	9644	4078	428	49
	헬스마니아	190013	187238	6549	20987
Daum	헬스초짜만세	107905	120767	766	13694
	S 라인 만들기 <small>☞다이어트 모든 것☜</small>	473463	180622	509	2159
	다이어트 투게더™	409946	86746	217	364
	도전다이어트 15kg 감량	425708	223100	330	1118
	몸짱 만들기	610046	470498	3,029	19531
	뷰티가이드	408416	494659	3,497	10543
	성공 다이어트 비만과의 전쟁	12023053	816196	68,759	47179
	성형 즐겨찾기	98707	349960	666	11054
	신마녀	323	24	21	6
	아놀드홍	133458	62500	1,212	1713
	지방흡입과 다이어트로 몸짱된 사람들	75809	25925	27	152



Also the respondents who often acted in online community were 29,545 on average, and there were 26,888 new postings added during a month, April, 2013.

With regard to dependent variables, it was the level of informational support ( $M=3.66$ ,  $SD=.65$ ) that was the highest among four sub-concepts of social support: emotional, appraisal, informational and instrumental supports. In other words, it is found that the respondents acquire informational support through online weight loss community, followed by the level of emotional support ( $M=3.60$ ,  $SD=.65$ ) with marginal gap. This is coherent with the previous research that online community is beneficial especially to gain informational support (Tanis, 2008).

Through the correlation analysis of major variables, it can be briefly interpreted that how both individuals' interactions and the structural characteristics of community are related with perceived social support. The size and the strength of egocentric network in individual level were positively correlated with perceived social support.

In details, emotional support is the most highly correlated with the size of egocentric network, ( $r =.321$ ,  $p<.01$ ); instrumental support ( $r$

= .251,  $p < .01$ ) was following. In terms of the strength of egocentric network, instrumental support is found to be the most highly correlated ( $r = .355$ ,  $p < .01$ ); and emotional support is to be the secondarily highly correlated with the strength of egocentric network ( $r = .330$ ,  $p < .01$ ). Interestingly, the size and the strength of egocentric network show the least correlations with informational support (each  $r = .227$ ;  $r = .228$ ,  $p < .01$ ). Moreover, the size and the activeness of online weight loss community were slightly correlated with perceived social support in positive way. It was emotional support which is the highly correlated with both the size and the activeness of online weight loss community (each  $r = .195$ ;  $r = .143$ ,  $p < .01$ ).

On the other hand, there is no significant correlation between the variables of individuals and the variables of communities, indicating that individual interactions in online community are totally separated from the total interactions in whole community. This result corresponds to the presumptions of this research that individuals' perceived social support can be simultaneously influenced from individual activities in online community as well as the characteristics of community itself.

**<Table 4> Pearson Correlations Coefficients of the Major Variables**

			Egocentric Network		Individual Participation	Whole Network				Perceived Social Support			
			Size	Strength		Total Postings	Total Members	New Postings	Active Members	Emotional	Appraisal	Informational	Instrumental
Egocentric Network		Size											
		Strength	.25**										
Individual Participation			.3**	.43**									
Whole Network	Size	Total Postings	-.005	.052	-.043								
		Total Members	-.004	.046	-.044	.929**							
	Activeness	New Postings	.007	.02	-.042	.875**	.905**						
		Active Members	.027	.029	-.024	.766**	.769**	.823**					
Perceived Social Support		Emotional	.321**	.33**	.357**	.202**	.171**	.195**	.143**				
		Appraisal	.247**	.299**	.353**	.166**	.152**	.157**	.105*	.781**			
		Informational	.227**	.218**	.284**	.181**	.179**	.166**	.111*	.759**	.785**		
		Instrumental	.251**	.355**	.483**	.115**	.104*	.094*	.077	.734**	.701**	.724**	

\*\* Correlation is significant at the .01 level (2-tailed).

\* Correlation is significant at the 0.05 level (2-tailed).

## **2. The Effects of the Each Variable on Perceived Social Support**

### **2.1. The Size of Egocentric Network**

To examine the effect of individual network on the four different kinds of social supports in the lower level: emotional, appraisal, informational and instrumental supports, a regression analysis was conducted. As presented <Table5>, it was revealed that the size of egocentric network in individual level is significantly influential to all types of social support. The result shows that the size of individual network is explaining emotional support best out of the four types of social support ( $\beta = .313$ ,  $p < .001$ ). It can be interpreted that the number of people whom to interact within online community predicts the possibility to provide the more emotional support. Thus, hypothesis 1, if the size of social ties in online community is stronger, emotional support will be most highly perceived, is verified by the result.

### **2.2. The Strength of Egocentric Network**

The strength of individual network is revealed that it is the most highly influential to instrumental support ( $\beta = .340$ ,  $p < .001$ ). This implies that feeling the stronger intensity toward individuals' own social ties gives more explanations to acquire a perception of physical

assistance from the community (see <Table 5>).

At the same time, the strength of egocentric network is revealed to associated least to informational support; it can be logically estimated that persons who use online community only for seeking information may have less intensity of social relation of their egocentric networks. Thus, hypothesis 2, If the strength of social ties in online community is stronger, emotional support will be most highly perceived, is rejected by the result.

### **2.3. Individuals' Participation**

A regression analysis was conducted to examine how individuals' participation in online weight loss community differently effects on social support. In general, individuals' participation is revealed to positively associate with the four types of perceived social support. Especially, it was instrumental support that the individuals' participation predicts mostly ( $\beta=.484$ ,  $p<.001$ ). It indicates that if persons participate more in online community by posting, exchanging messages and reading others, there is more possibility for them to think the more availability of financial or physical benefits from online weight loss community.

## **2.4. Community Size**

A regression analysis was conducted to examine the effect of community size, the whole network level variable, on perceived social support. Community size was weakly associated with the four types of perceived social support. Informational support was found to be highly related with community size ( $\beta=.135$ ,  $p<.01$ ). This implies that larger community gives more explanations to acquire a perception of informational assistance from the community. This is coherent from literature reviews that larger community is more beneficial for job seeking, technical advices. Thus, hypothesis 3, informational support will be the most positively associated with the size of online weight-loss communities, is verified as the result of analysis.

**<Table 5> Regression Coefficients**

		Perceived Social Support																											
		Emotional (β)							Appraisal (β)							Informational (β)							Instrumental (β)						
Control Variables	Sex	.07	.093*	.159	.150***	.044	.042	.163**	.027	.044	.120*	.120*	.004	.003	.130	-.005	.01	.066	.055	-.033	-.033	.06	-.032	-.014	.051	.070	-.049	-.047	.067
	Age	.035	.019	-.096	-.018	.036	.042	-.087	.027	.015	-.078	-.078	.028	.033	-.079	.055	.045	-.059	.015	.057	.063	-.056	.127	.115**	-.0012	.059	.127**	.131**	-.012
	Membership Period	.173***	.149***	.139*	.165***	.134**	.139**	.087	.17***	.151***	.106	.106	.136**	.141**	.067	.181***	.165***	.115*	.175**	.141**	.148**	.057	.135	.117**	.090	.124***	.109*	.116*	.038
	Urgency for Losing Weight	.110*	.101*	.134*	.091*	.102*	.104*	.12*	.033	.026	.071	.071	.026	.028	.052	.073	.067	.114*	.059	.065	.068	.094	.069	.062	.119*	.045	.064	.066	.093
	Experience of Losing Weight	.094*	.092*	.05	.059	.099*	.097*	.074	.067	.066	-.006	-.006	.072	.070	.012	.055	.053	.009	.027	.060	.057	.022	.06	.059	-.023	.014	.063	.062	-.009
Individual Level	Size of Egocentric Network		.313***					.162**		.238***				.156**		.213***					.086		.235***						.142
	Strength of Egocentric Network			.313***				.128*			.295***			.053			.202***				.073			.340***					.012
	Participation				.380***			.263***				.295***			.292***			.287***			.231***				.484***				.420***
Community Level	Community Size					.132**		-.043					.113*		-.011					.135**		.07					.085		.034
	Community Activeness						.127**	.180**						.107*	.102						.124**	.089						.071	.099
R2		.079	.175	.215	.213	.093	.092	.314	.10	.044	.135	.174	.055	.054	.217	.049	.094	.091	.126	.064	.062	.165	.045	.099	.153	.264	.051	.049	.307
F		8.40	17.39	13.85	22.18	8.43	8.33	13.89	9.09	4.52	7.93	17.22	4.74	4.63	8.44	5.07	8.47	5.05	11.81	5.64	5.41	5.44	4.61	9.02	9.14	29.33	4.39	4.22	13.5

\*\*\*p<.001, \*\*p<.01, \*p<.05

## **2-5. Community Activeness**

It was found that the community activeness has been revealed to be highly associated with emotional support ( $\beta=.127$ ,  $p<.01$ ) among the four types of social support. However, the number of new postings for a month was not statistically significant to instrumental support; and the overall coefficients of the size and the activeness of communities were much lower than the variables in individual level. It can be interpreted that individuals' perceived social support can be explained better with the individuals' activities in online weight loss communities compared to the communities' characteristics.

## **3. Multiple Regression Analysis for the Most Influential Variable**

A multiple regression analysis was conducted to find the most influential variable of both individual and community levels as a motivator of perceived social support as presented <Table 5>. Overall, it is found that the individual-level variables, the size and the strength of egocentric network and individuals' participation, override the community-level variables, the size and the activeness of whole



network. When all the variables were put into the one regression model, only community activeness were significantly related to emotional support, which can be interpreted that the effect of both communities' size and activeness on individuals' perceived social support is much marginal than the effect of individuals' activities in online weight loss community.

Also emotional support was found to be the most affected by the independent variables: the size of egocentric network ( $\beta = .162, p < .01$ ), the strength of egocentric network ( $\beta = .128, p < .05$ ), individual participation ( $\beta = .263, p < .001$ ) and community activeness ( $\beta = .180, p < .01$ ). Thus, it can be said that emotional support is the most predictable by the interactions between the individuals' activity within online weight loss community and the communities' characteristics.

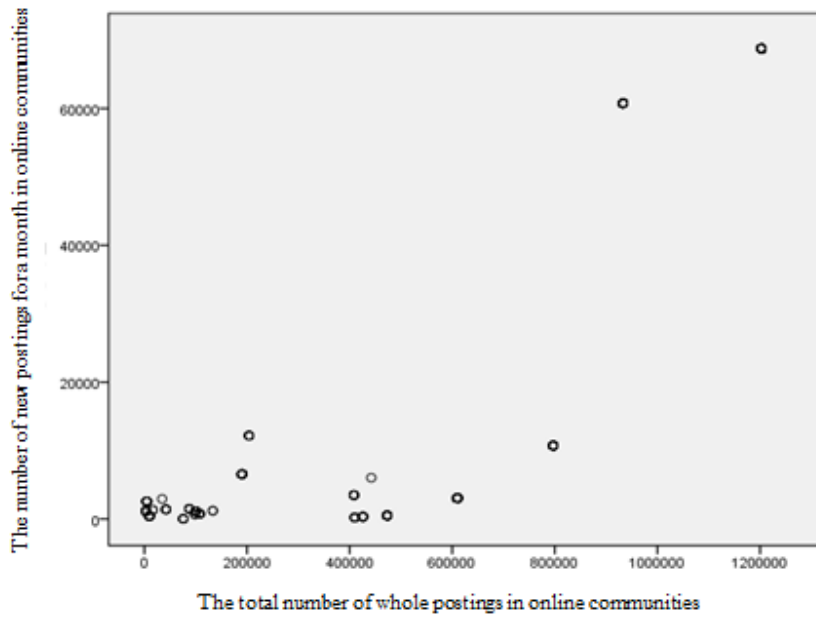
Moreover, it was found that individuals' participation was the variable to predict all the types of social supports best. Especially, it is instrumental support which is the most highly associated with individual participation ( $\beta = .420, p < .001$ ). It implies that what is the most important to gain perceived social support is active participation of each member of online weight loss communities. In other words, the notion of availability of social resources in online community doesn't

really help for social support perception to be elevated; only if there is individuals' positive effort to be involved, there are more possibilities to have a larger amount of all the types of perceived social supports.

#### **4. The Indirect Influence of the Characteristics of Online Communities**

As all the online communities are widely ranged in accordance with their size and activeness, the multiple regression analysis on perceived social support could be biased because of extraordinary online weight loss communities; thus, multiple regression analysis was conducted again as an additional analysis by splitting communities into the two groups. Regarding with the size of community on X-axis, and the activeness of community on Y-axis, it was possible to categorize all the communities into the two groups as shown <Figure 1>: the one includes the two large and active communities on the top right; and the other includes the relatively small and inactive communities on the bottom left.

**<Figure 1> Scatter Plot Illustrating the Size and Activeness of the Online Weight Loss Communities**



In general, individual participation was the most influential variable in the all types of perceived social support; and community activeness was effective only on emotional and instrumental supports.

**<Table 6> Multiple Regression Comparing the Two Types of Online Communities**

		Large and active communities (N = 350)				Small and inactive communities (N = 148)			
		Emotional	Appraisal	Informational	Instrumental	Emotional	Appraisal	Informational	Instrumental
Egocentric Network	Size	.172 ***	106 *		.099 *				
	Strength	.264 ***	239 ***	110 *	163 **			.260 **	.245 **
Individual Participation		.256 ***	279 ***	233 ***	414 ***	.193 *	.219 *		.324 ***
Whole Network Activeness		.105 *			.097 *				
R2		.314	.249	.147	.343	.326	.204	.246	.272
F		17.3	12.547	6.496	19.737	7.426	3.926	4.989	5.742

\*\*\*p<.001, \*\*p<.01, \*p<.05

Statistically insignificant regression coefficients are not displayed .

## **VI. Discussions**

### **1. Summary**

This research explores how social support is acquired in accordance with the interaction between community structural characteristics and individual network of social ties as well as individual participation within online weight loss communities. Previous research has mainly described perceived social support as resources attained from interpersonal communication within local communities; conversely, based on network theory, this research aims to analyze how those two origins of social support simultaneously lead individuals to perceive social support in the setting of an online weight loss community. In particular, it is grounded on a notion that that individuals' social support can be differentiated in accordance of where they belong to, which moderates the effect of the variables of individual level on social support perception. Thus, by reviewing the literature of individual networks, online communities as well as social support, the research model was established with consideration of the limitations of previous research to comprehensively understand the motivators of social support.

The main result of the research can be summarized as follows: First, it is found that the variables of the individual level – the size and the strength of individual network, the level of participation- is positively associated to the level of overall perceived social support. The members of the online weight loss community have a tendency to think there is an availability of social resources from the community when the size of individual network is larger or when the strength of individual ties is higher within the online weight loss community. Especially, among the four dimensions of social support, it has been revealed that emotional support is mostly expected; and instrumental support is highly expected if the strength of individual network is stronger. Secondly, it is reported that the variables of group level – community size and activeness- slightly explain the social support. The size of the community was useful to predict informational support best, and it was emotional support that communities' activeness is most influential to. Thirdly, individual participation was found to be the most powerful motivator of perceiving any kind of social supports, especially instrumental support. Fourthly, it was turn out that individuals' activities and the structural characteristics of online weight loss communities have a possibility to predict emotional support.

Additionally, individuals in the large and active communities have a tendency to have more various precedents for social support perception; on the other hand, individuals in the small and inactive communities were only influenced by their participation or the strength of egocentric network without any effects from the features of communities. Based on the results the interpretation and implications of this research are discussed.

## **2. Key Findings and Implications**

First of all, it was revealed that no perceived social support could be reaped unless there is participation of individuals. In the results, individuals' participation in an online weight loss community was found to be the superior of any other variables in terms of the effect on the all types of perceived social support. This can be interpreted as the perceived availability of all the kinds of resources from online communities is solidly grounded on the users' individual participation. It may be because the more participatory attitudes to online weight loss communities such as writing or reading posts and exchanging messages can lead the members to be more exposed to numerous resources

exchanged by others within virtual space; thus, there are more possibilities to commit the exchange of social resources in online weight loss communities. Moreover, as individuals' participation is necessary for community building and sustainability, especially in virtual space, there are more chances to build up the sense of belonging toward the community, and thus, to have the higher level of perceived social support if an individual is more involved in the community by participation. At the same time, it could be natural that participation is the most influential variable among the independent variables because it can be understood as a prerequisite of mediated interpersonal communication as well as egocentric network within the online weight loss community. No social relation exists without reading or writing texts. Thus, this research verified how individuals' participation is important in the setting of the online community; moreover, to the individuals' perception of what they can gain from participation in online weight loss communities.

Furthermore, this study theoretically contributes to social support literature in the setting of virtual communities. It is prominent that the results show that the online community influences individuals' perception of social support. Previous research has had a tendency to



regard virtual community just as a platform; thus, it is scarcely discussed that the features of online communities can be influential to the users' perception. Thus, as questioning the impact of online communities' characteristics whose border could be as obvious as offline groups, it has been analyzed how communities' features influence individual variables as well as perceived social support. The result showed that individuals are affected not only by what they do but also where they belong, especially for emotional support; however, in the additional analysis, it has been more clearly revealed how individuals' social support perceptions differentiate according to the groups with different structural characteristics. In the large and active communities there are more various independent variables which are effective and which are associated with perceived social support. In other words, individuals in the large and active communities have a tendency to perceive social support according to both the size and the strength of egocentric networks as well as communities' activeness; on the other hand, the members of the small or inactive communities gain perceived social support only through individuals' participation or the strength of egocentric network. This indirectly shows that the characteristics of online weight loss communities differentiate

individuals' perception.

However, it was revealed that the characteristic at the community level do not override the individuals' interaction or participation as a prerequisite of perceived social support. According to the result of intra-class correlation analysis, which shows the difference of random effects within a group and between groups, it was shown that the community level variables explain only 3% of the random effects on perceived social support. It means the size and the strength of individual network overwhelmingly explain perceived social support by about 97%. The reason for this result could be assumed to be because the community members themselves do not clearly distinguish whom they communicate with; they do not recognize if it is other community members or the online community itself when they are communicating through the online weight loss community. But in retrospect to other research, which examined how offline groups such as school or volunteer communities interact with individuals' features (Kim, 2012), it is not surprising that online community features have a low level of explanation about individuals' perception because offline groups often do not surpass the influence of interpersonal communication on the individual's perception. In other words, it is still not that easy for an

online community to have an identity as 'a group' because its border or impact is not physically visible to the members. Nevertheless, this research is meaningful in that it verified the structural characteristics of communities to lead to engender the perception of social support functioning. It ascertains the slight possibility that online community could be recognized as a 'community', where people can feel as like they are nested.

At the same time, this study can be understood as a kind of replication of Granovetter (1973) under the circumstance of the virtual community; thus, this study can contribute the development of social network theory. This study differentiates the size and the strength of social ties in dual levels of both egocentric networks and whole networks while examining what is influential to individuals' various social support perception in details. In terms of size, egocentric networks were influential to emotional support; and whole network were associated with informational support. It can be interpreted as such because the common goal of online community, losing weight, is more like a target which needs emotional effort such as strong motivation or concerns from others. Thus, it can be estimated that the members who have 'a goal achieved by strong willingness' have a

tendency to have egocentric networks; and they are influenced by the individual networks of online weight loss communities as they share a common interest and fellowship with another members and they are provided with what they are looking for from online community, emotional support.

Also, the relation between the size of whole networks and informational support is also the reasonable result according to a review of the previous literature. A larger network with weak ties allows the newer and the more innovative resources to be invited (Tanis, 2008); especially, asynchronous interactions with a form of text exchange let the community members approach to the accumulated informational resources. Thus, larger online weight loss communities can provide more diverse information from its accumulated data base.

Interestingly, it was reported that instrumental support was the most highly correlated with the strength of individual network. Traditionally, instrumental support is social resources generally gained from close relationships because it includes financial or tangible assistance, which needs physical proximity. Also instrumental support cannot be gained without strong bonding feeling as it needs more trust and risk taking between the social relations. Thus, it was surprising to find the strength

of egocentric network is the most highly related with instrumental support even though online community is not based in the 'real' physical life. It can be interpreted as that there are the more possibilities of stronger relationships expected to be enlarged in virtual community. As the instrumental resources premise the harder commitment from the others, the perception of its availability shows that there is an unclear border between on and offline in the perception of online community members; so it is possible that they recognize the availability of various resources not only from offline but also online relations regardless of the exact nature. Therefore, the result of this research adds understanding to previous research that online communities are not limited in virtual space, but are extending into the offline communities.

In sum, this study focuses on social support attained from online weight loss community; because it is interesting phenomenon that there are numerous people trying to lose weight in online communities under the social context of the low national rate of obesity and because social support has been regarded to be closely associated with healthy behavior. In reality, it was found that people built and sustain online weight loss communities with the common goal of losing weight; and gain various kinds of social support in accordance with their activities

as well as communities' characteristics. As interpersonal communication and participation within online weight loss communities are imperative elements; thus, this result could be adaptable in another online communities. Especially, if a certain online community has strong identity as a community- in the case of online communities with strong political tendency or regional characteristics- it could be possible that the characteristics of the whole network overrides the features of the egocentric network. In conclusion, this study is meaningful in terms of that it adds the more understanding about social support in online communities by comprehensively examining the egocentric network as well as the whole network.

### **3. Limitations and Suggestions for the Future Research**

The research suffers from some limitations. First of all, it restricted the concepts of prerequisites of social support in online weight loss community as the only individual network and individual participation. Of course, it is plausible that if the larger size of individual network is, or if the higher strength of individual network is, social support

perception is expected to be higher; however, there could be another variable which explains social support much better than what is used in the study. Thus, to elucidate what brings social support in online weight loss community, it is necessary to include other critical variables in details such as what people talk in postings or comments or the personal characteristics besides the size and the strength of individual network and participation.

Moreover, another limitation of the research is the marginal leverage of variables in community levels. It could be grounded on the limited measurement of network characteristics – the size and the activeness- which is due to limited access to the information of online community. The explanation of community level variables could be enhanced by additional measurement such as the number of page views or comments. In addition to the network structural characteristics, the characteristics of each main page of online weight loss community in terms of interface, commercial property of information can differentiate the individuals' perception, especially social support. Thus, by doing so, the more comprehensive model of motivator for social support should be devised in future research.

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## <Appendix>

### 연구참여자 설명서 및 동의서

본 조사는 온라인 체중 감량 커뮤니티의 구조적인 속성을 개인적, 집단적 수준으로 살펴보고, 그러한 요인들이 이용자로 하여금 어떻게 상호 사회적 지지감에 영향을 미치는 가를 파악하고자 하는 목적에서 계획되었습니다. 설문내용은 본인이 속한 온라인 체중 감량 커뮤니티에 대하여 응답자가 인식한 구조적 속성과 커뮤니티 내 개인적인 활동, 그로 인해 느끼게 되는 다양한 사회적 지지감을 묻는 질문들로 구성되어 있습니다. 설문은 귀하를 포함하여 온라인 체중감량 커뮤니티 이용자 약 500여명이 참여할 예정입니다. 귀하가 이 연구에 참여하는데 있어서 직접적인 이득은 없습니다. 그러나 귀하가 제공하는 정보는 온라인 체중감량 커뮤니티의 참여가 개인적 건강 인식 및 사회적 지지감 인식에 미치는 영향에 대한 이해를 증진하는데 도움이 될 것입니다.

본 조사는 자발적으로 참여 의사를 밝히신 분에 한하여 수행될 것이며, 귀하께서는 언제든지 어떠한 불이익 없이 참여 도중에 그만 두실 수 있습니다. 만일 응답 도중 귀하가 연구에 참여하는 것을 그만두고 싶다면 우측 하단의 '중단하기' 버튼을 눌러주시기 바랍니다. 본 질문에는 옳고 그른 답이 없으며 수집된 자료는 통계적으로 처리될 뿐 공개되지 않습니다. 본 조사기간은 2013년 4월 30일까지이며, 응답에는 약 20분 가량이 소요됩니다. 조사 참여 중간에는 이전 페이지로 돌아갈 수 없으며, 창이 꺼지고 10분 내 재참여가 가능합니다. 조사에 참여하셔서 설문을 완료하신 분들께는 1000원을 적립금으로 지급하고자 합니다.

본 조사의 개인정보관리 책임자는 서울대학교 언론정보학과 석사과정 서민향입니다. 본인은 이 연구를 통해 얻은 모든 개인 정보의 비밀 보장을 위해 최선을 다할 것입니다. 이 연구에서 얻어진 자료가 학회지 등에 공개될 때 귀하의 개인정보는 사용되지 않을 것입니다. 그러나 모니터 요원, 점검 요원, 생명윤리심의위원회는 연구참여자의 개인 정보에 대한 비밀 보장을 침해하지 않고 관련규정이 정하는 범위 안에서 본 연구의 실시 절차와 자료의 신뢰성을 검증하기 위해 연구 결과를 직접 열람할 수 있습니다. 귀하께서 본 동의서에 동의 버튼을 누르는 것은, 이러한 사항에 대하여 사전에 알고 있었으며 이를 허용한다는 동의로 간주될 것입니다. 만약 본 연구에 대해 질문이 있거나 연구 중간에 문제가 생길 시 연구자에게 연락하시고, 연구참여자로서 귀하의 권리에 대한 질문이 있으시다면

서울대학교 생명윤리심의위원회(02-880-5153)로 연락하시면 됩니다. 감사합니다.

나는 이 설명서를 읽었으며, 이 연구에 참여하는 것에 대하여 자발적으로 동의합니다.  
나는 이 연구에서 얻어진 나에 대한 정보를 현행 법률과 생명윤리심의위원회 규정이 허용하는 범위 내에서 연구자가 수집하고 처리하는데 동의합니다.

동의함 ☐                      동의하지 않음 ☐

귀하는 언제든지 어떠한 불이익 없이 참여 도중에 그만 두실 수 있습니다. 만일 응답 도중 귀하가 연구에 참여하는 것을 그만두고 싶다면 우측 하단의 '중단하기' 버튼을 눌러서 참여를 철회하실 수 있습니다.

네, 알겠습니다. ☐                      아니오, 잘 이해가 안 됩니다. ☐

1. 현재 귀하는 체중감량을 위한 온라인 커뮤니티에서 가입하고 활동하고 계십니까?  
(체중감량을 위한 온라인 커뮤니티에 대해서는 아래의 설명을 참조하시기 바랍니다.)

① 예    ② 아니오 (설문 종료)

● 체중감량을 위한 온라인 커뮤니티:

체중감량 온라인 커뮤니티란 체중감량을 목적으로 [네티즌](#)들이 직접 정보를 생산, 공유하며 활동하는 온라인 공간으로, 다이어트, 식이조절, 헬스, 요가, 지방흡입, 비만 등의 주제를 가진 온라인 카페나 게시판 등을 의미한다. 예를 들면

Naver나 Daum과 같은 포털사이트의 카페 중 <성공 다이어트, 비만과의 전쟁>, <다이어트 먹으면서 빼자>, <지방흡입으로 살 뺀 사람들> 등이 있다.

2. 다음은 귀하가 주로 활동하는 체중감량을 위한 온라인 커뮤니티에 관한 설문입니다.

2-1. 귀하가 가장 많이 활동하는 커뮤니티 이름을 선택해 주십시오. (1개)

- 1) 다음카페(Daum Café) 성공 다이어트 비만과의 전쟁
- 2) 다음카페(Daum Café) 몸짱 만들기
- 3) 다음카페(Daum Café) S라인 만들기 ~~다이어트~~ 다이어트 모든 것
- 4) 다음카페(Daum Café) 도전다이어트15kg감량
- 5) 다음카페(Daum Café) 뷰티가이드
- 6) 다음카페(Daum Café) 성형 즐겨찾기
- 7) 다음카페(Daum Café) 지방흡입과 다이어트로 몸짱된 사람들
- 8) 다음카페(Daum Café) 다이어트 투게더™ (비만탈출→완소몰매)
- 9) 네이버(Naver Café) 다이어트 먹으면서 빼자
- 10) 네이버(Naver Café) ★지방흡입술로 살뺀사람들★ 네이버(Naver Café) 헬스마니아 몸짱 클럽/헬스보충제 공구/다이어트/초보운동법
- 11) 네이버(Naver Café) 여우야
- 12) 네이버(Naver Café) 헬스초짜만세-헬스/보충제/다이어트 공유
- 13) 네이버(Naver Café) 다이어트 빅리그
- 14) 네이버(Naver Café) 다이어트(살빠지는곳)
- 15) 네이버(Naver Café) [The Fastian] 단식하는 사람들
- 16) 네이버(Naver Café) 얼짱,몸짱,공짱,패션짱 짱이되고 싶은 사람들의모임
- 17) 네이버(Naver Café) !!!헬스 & 다이어트!!!
- 18) 네이버(Naver Café) ◆ 훈녀의 비밀?! 지방흡입과 다이어트~
- 19) 네이버(Naver Café) ★지앤지★지방흡입&지방분해주사로 S라인만들기
- 20) 네이트(Nate) 판 톡톡
- 21) 기타 (반드시 기입 부탁드립니다)\_\_\_\_\_

2-2. 귀하는 선택한 커뮤니티가 어떤 주제와 가장 관련이 되어 있다고

① 다이어트 식단 ② 운동방법 (헬스, 요가, 스트레칭 등)  
③ 전문적인 다이어트 프로그램에 대한 정보 (마리프랑스, 쥘비스, 14일 동안 등) ④ 지방흡입술 및 지방분해주사 등 빼띠성형 정보  
⑤ 기타 ( )

약                      년                      개월 정도

3. 귀하가 선택한 체중감량을 위한 커뮤니티에 대하여 아래 문장에 동의하는 정도를 선택해주시기 바랍니다.

		매우 아니다	조금 아니다	보통	조금 그렇다	매우 그렇다
3-1	내가 속한 커뮤니티의 <b>운영자</b> 는 다른 커뮤니티에 비하여 활발하게 활동하는 편이다.	①	②	③	④	⑤
3-2	내가 속한 커뮤니티에는 다른 커뮤니티에 비해 <b>활동하는 사람들이 많은 편이다.</b>	①	②	③	④	⑤
3-3	내가 속한 커뮤니티에는 체중 감량과 관련된 정보에 대하여 편하게 물어볼 수 있는 사람이 많이 있다.	①	②	③	④	⑤
3-4	나는 커뮤니티에서 자주 <b>글을 쓰거나 사진을</b> 올리는 편이다.	①	②	③	④	⑤
3-5	나는 커뮤니티에서 다른 사람이 쓴 글에 <b>댓글을</b> 남기거나 체중 감량 정보와 관련해서 다른 사람들과 <b>쪽지</b> 를 주고 받는다.	①	②	③	④	⑤

		매우 아니다	조금 아니다	보통	조금 그렇다	매우 그렇다
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4-3	나는 이 커뮤니티의 멤버들에게 친근감을 느낀다.	①	②	③	④	⑤
4-4	나는 이 커뮤니티에 자주 접속해서 글을 읽는 편이다.	①	②	③	④	⑤
4-5	이 커뮤니티의 사람들은 나와 관심사가 비슷하다.	①	②	③	④	⑤
4-6	나는 이 커뮤니티에서 오래 전부터 활동해오고 있다.	①	②	③	④	⑤

5. 다음은 체중감량을 위한 온라인 커뮤니티 내 귀하의 대인관계에 관한 설문입니다.

5.1. 응답자는 평균 1달 동안 이 커뮤니티의 멤버 중 몇 명과 교류 (포스팅을 읽고 댓글을 남기거나 쪽지를 주고 받는 것)을 한다고 생각하십니까?

약 \_\_\_\_\_ 명

5.2. 최근 1달 사이에 교류한 사람 (포스팅을 읽고 댓글을 남긴 사람, 혹은 쪽지를 주고 받은 사람)이 있습니까?

① 네 (5.3으로 이동) ② 아니오 (6으로 이동)

5.3. 그렇다면 귀하가 이 커뮤니티에서 최근 1달 사이에 가장 많이 교류한 사람 3명을 떠올려 보십시오. (예를 들면, 최근에 귀하가 댓글을 남긴 포스팅을 쓴 사람, 혹은 귀하가 온라인 커뮤니티 상에서 자주 보는 커뮤니티 멤버, 혹은 귀하가 개인적으로 쪽지를 주고 받은 사람 등)

그 분들을 각각 갑/을/병 이라고 지칭하고, 각각에 대하여 다음 페이지의 질문에 답해주시기 바랍니다.

5.3.1. 앞에서 떠올린 '갑' 에 대하여 응답해 주시기 바랍니다.

1) 나는 이 사람에게 친근감을 느끼는 편이다.

① 매우 아니다 ② 조금 아니다 ③ 보통 ④ 조금 그렇다 ⑤ 매우 그렇다

2) 이 사람은 나와 관심사가 비슷한 것 같다.

① 매우 아니다 ② 조금 아니다 ③ 보통 ④ 조금 그렇다 ⑤ 매우 그렇다

3) 내가 지난 한 달 동안 갑이 쓴 포스팅에 댓글을 남기거나 갑과 쪽지를 주고 받은 횟수는

약 \_\_\_\_\_ 번 정도 이다.

4) 내가 이 커뮤니티에서 갑을 안지는 약 \_\_\_\_\_ 개월 정도 된 것 같다.

5.3.2. 앞에서 떠올린 '을' 에 대하여 응답해 주시기 바랍니다.

1) 나는 이 사람에게 친근감을 느끼는 편이다.

① 매우 아니다 ② 조금 아니다 ③ 보통 ④ 조금 그렇다 ⑤ 매우 그렇다

2) 이 사람은 나와 관심사가 비슷한 것 같다.

① 매우 아니다 ② 조금 아니다 ③ 보통 ④ 조금 그렇다 ⑤ 매우 그렇다

3) 내가 지난 한 달 동안 을이 쓴 포스팅에 댓글을 남기거나 갑과 쪽지를 주고

받은 횟수는

약 \_\_\_\_\_ 번 정도 이다.

4) 내가 이 커뮤니티에서 올을 안지는 약 \_\_\_\_\_ 개월 정도 된 것 같다.

5.3.3. 앞에서 떠올린 '병'에 대하여 응답해 주시기 바랍니다.

1) 나는 이 사람에게 친근감을 느끼는 편이다.

① 매우 아니다 ② 조금 아니다 ③ 보통 ④ 조금 그렇다 ⑤ 매우 그렇다

2) 이 사람은 나와 관심사가 비슷한 것 같다.

① 매우 아니다 ② 조금 아니다 ③ 보통 ④ 조금 그렇다 ⑤ 매우 그렇다

3) 내가 지난 한 달 동안 병이 쓴 포스팅에 댓글을 남기거나 갑과 쪽지를 주고 받은 횟수는

약 \_\_\_\_\_ 번 정도 이다.

4) 내가 이 커뮤니티에서 병을 안지는 약 \_\_\_\_\_ 개월 정도 된 것 같다.

6. 다음은 본인이 속한 커뮤니티에 대한 생각을 묻는 질문입니다. 잘 읽고 답해주세요.

		매우 아니다	조금 아니다	보통	조금 그렇다	매우 그렇다
1	체중 감량을 할 때 나는 이 커뮤니티에서의 활동을 통해 위로 받을 수 있다.	④	④		④	⑤
2	이 커뮤니티의 멤버들은 내 체형에 대해 객관적인 평가를 해줄 것 같다.	④	④		④	⑤
3	나는 이 커뮤니티로부터 믿을 만한 체중감량 정보를 찾을 수 있다.	④	④		④	⑤
4	나는 이 커뮤니티를 통해 체중감량을 같이 할 친구를 찾을 수 있을 것 같다.	④	④		④	⑤
5	이 커뮤니티 사람들은 체중감량을 할 때 내가 느끼는 어려움에 공감해줄 것이다.	④	④		④	⑤
6	이 커뮤니티의 사람들은 나의 체중감량 방법이 올바르다고 평가해 줄 것이다.	④	④		④	⑤
7	이 커뮤니티 사람들은 내가 위험한 방법으로 체중감량을 하지 않게 조언해 준다.	④	④		④	⑤
8	내가 체중 감량 방법에 대한 노하우를 묻는 쪽지를 보내면 이 커뮤니티의 사람들은 선뜻 대답해 줄 것 같다.	④	④		④	⑤
9	이 커뮤니티의 사람들은 내 체중감량 고민에 관심을 갖고 조언을 해줄 것 같다.	④	④		④	⑤
10	이 커뮤니티의 사람들처럼 나도 목표한 체중 감량을 잘 해낼 수 있다.	④	④		④	⑤
11	이 커뮤니티를 통해 체중 감량 방법에 대해 몰랐던 사실을 잘 알게 되었다.	④	④		④	⑤
12	이 커뮤니티의 공동구매를 통해 내가 평소에 관심있었던 체중 감량 관련 상품을 저렴하게 구매할 수 있을 것이다. (ex. 다이어트 식품, 아령 같은 운동기구 등)	④	④		④	⑤
13	이 커뮤니티에는 내 체중 감량에 대해 댓글로 걱정, 응원해주는 사람들이 있다.	④	④		④	⑤
14	목표만큼 체중을 감량했을 때 이 커뮤니티의 사람들은 나를 칭찬해 줄 것이다.	④	④		④	⑤
15	체중감량 도중 어려움이 생기면 이 커뮤니티를 통해 해결 방안을 찾을 수 있다.	④	④		④	⑤
16	나는 이 커뮤니티를 통해서 평소에 관심 있었던 체중감량과 관련 무료 체험을 경험해볼 수 있을 것이다. (ex. 다이어트 식품, 책, 시술 체험이벤트 )	④	④		④	⑤

7. 다음 문항들은 귀하에 대한 기본적인 정보를 알아보기 위한 문항들입니다.

1) 귀하의 성별은 무엇입니까? ①남 ②여

2) 귀하는 현재 만 몇 세입니까? 만 \_\_\_\_\_세 (출생년도: \_\_\_\_\_년)

3) 귀하의 최종학력은 무엇입니까?

① 중졸 ② 고졸 ③ 전문대졸 ④ 대학 재학 ⑤ 대졸 ⑥ 대학원 재학 이상

4) 귀하의 가정 월평균 소득은 어느 정도입니까? 월평균 \_\_\_\_\_만원

5) 본인은 본인에게 다이어트가 얼마나 시급하다고 생각하십니까?

① 거의 시급하지 않다 ② 별로 시급하지 않다 ③ 보통 ④ 조금 시급하다 ⑤ 매우 시급하다

6) 다이어트를 한 경험은 얼마나 되십니까?

① 한 번도 시도해보지 않았다. ② 한두 번 시도해본 적이 있다. ③ 가끔 다이어트를 하곤 한다. ④비교적 자주 다이어트를 하는 편이다. ⑤ 항상 다이어트 중이다.

7) 본인은 체중감량이 필요하다고 생각하십니까?

① 전혀 아니다 ② 약간 아니다 ③보통이다 ④조금 그렇다 ⑤매우 그렇다

귀한 시간을 내 주셔서 감사드립니다. 본 설문은 연구 목적으로만 쓰일 것이며 귀하께서 대답하신 개인적인 사항들은 다른 설문과 함께 컴퓨터 통계처리용 데이터로만 활용될 뿐이며 절대 공개되지 않습니다. 설문에 응해주셔서 대단히 감사합니다.

## 국문 초록

### 온라인 체중감량 커뮤니티 내 다차원적 사회적 지지감에 관한 연구

: 개인의 참여와 상호작용 및 집단의 구조적 속성을 중심으로

본고는 사회 네트워크 이론에 기반하여 개인의 사회적 지지감 형성에 영향을 미치는 요인을 개인적, 집단적 수준으로 나누어 온라인 커뮤니티의 특성과 이용자 개인적 상호작용 및 참여를 살펴보았다. 특히, 사회적 지지감을 감정적, 평가적, 정보적, 도구적 지지감의 네 가지의 하위 차원으로 분류하여 보다 구체화하였다. 20~50대의 온라인 체중감량 커뮤니티의 이용자를 대상으로 한 설문조사를 회귀분석한 결과 ( $N = 498$ ), 사회적 지지감의 네 하위 차원은 여러 변인에 의해 차별화 되는 것으로 나타났고, 여러 설명변수 중 사회적 지지감 형성에 가장 중요한 전제 조건은 개인적 참여라는 것으로 드러났다. 또한 집단의 활동성은 네 가지의

사회적 지지감 중 감정적 지지감만을 예측할 수 있었다. 또한 커뮤니티를 크기에 따라 두 개로 나눠 추가분석을 한 결과, 활동적이고 규모가 큰 집단에 소속된 사람들은 사회적 지지감 획득에 커뮤니티의 활동성에 영향을 받는 경향이 있었고 더불어 개인적인 내집단의 영향력도 더 크게 나타났다. 요약하자면, 온라인 체중 감량 커뮤니티 이용자들의 사회적 지지감에 대한 집단적 수준의 영향력은 개인적 수준의 변인에 비해 미미한 것으로 나타났다. 그럼에도 불구하고, 집단의 구조적 특성은 개인의 사회적 지지감 형성 및 개인적인 활동에도 영향을 끼쳤고, 이는 온라인 커뮤니티가 단순한 플랫폼을 넘어서 이용자들에게 ‘집단’으로서 인식될 수 있다는 가능성으로 해석될 수 있을 것이다.

**주요어** : 사회적 지지감, 사회연결망 이론, 체중감량 온라인 커뮤니티

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